

VHF BAND PASS FILTER BUILT WITH CERAMIC COAXIAL RESONATOR

ABSTRACT OF THE DISCLOSURE

A microwave filter for use at VHF frequencies provides a relatively high-Q without the need for the microstrip line or bulky mechanical resonators and varactors. The transmission line filter in accordance with the present invention utilizes a coaxial resonator, which obviates the need for microstrip line and strip line resonators, thus making the use of large ceramic substrates unnecessary. In accordance with another embodiment of the invention, switched capacitor arrays are used in place of the conventional varactors diode. As such, a microwave filter, suitable for VHF frequencies, is provided using relatively low cost off-the-shelf ceramic resonators which can be used to build a relatively low insertion loss high rejection band pass filter in the aviation band frequency range of 100 MHz to 200 MHz.